

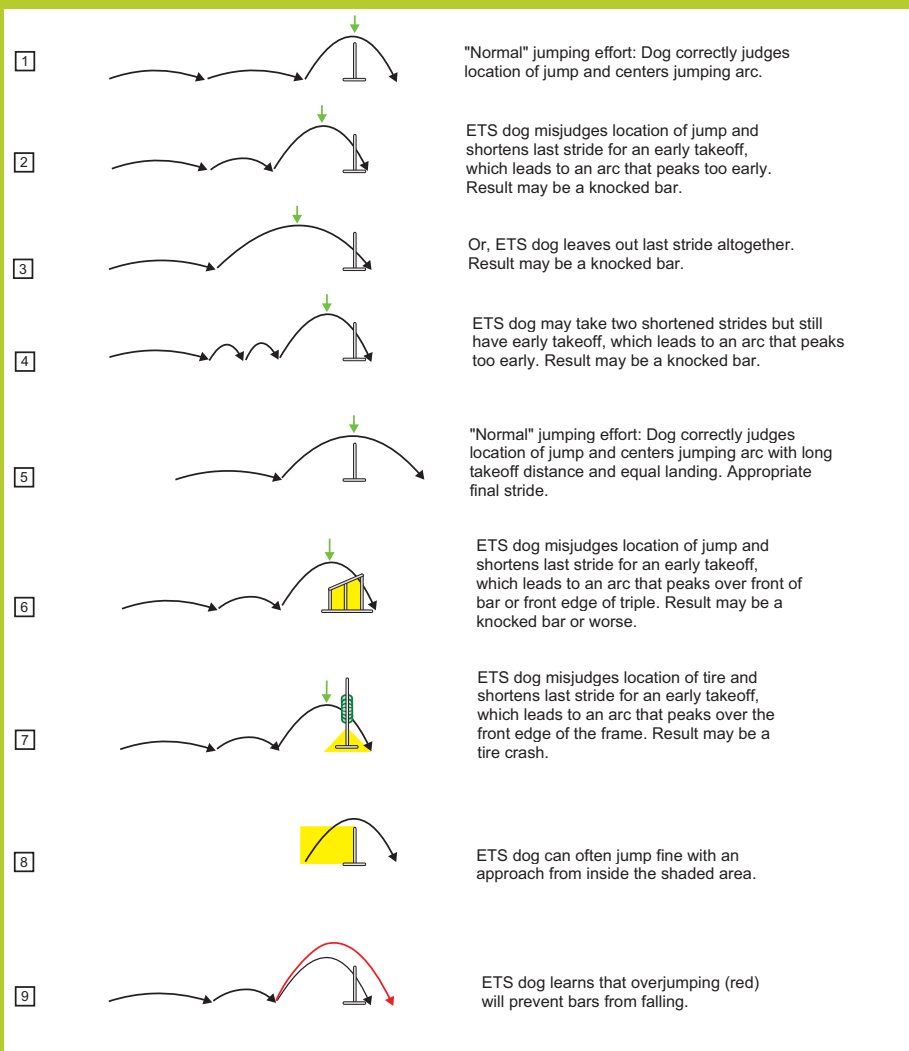
What Is Early Takeoff SYNDROME?

By Linda Mecklenburg

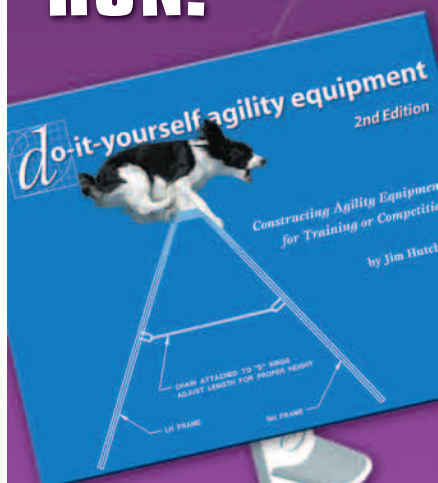
Early takeoff syndrome (ETS) is a term I use to describe a jumping problem seen in some performance dogs where they take off too early for jumps. The syndrome ranges from a subtle hitch on the dog's final stride to severe stuttering before a jump. The dog most often inappropriately shortens his last stride before takeoff, but some dogs simply leave out the last stride. In both cases, the takeoff distance is too far back leading to the dog's jumping arc peaking before the bar, and the dog begins the descent phase of the arc before he reaches the hurdle. As a result, the dog may knock bars. See **Figures 1-4**. This should not be confused with a long takeoff distance, which if balanced with an equally long landing distance, simply means the dog is jumping with a flat jumping trajectory. See **Figure 5**.

HISTORY

The dog presents with what the handler perceives as a recent onset of jumping problems. Often the dog has already been competing for one to three years with no apparent difficulty. Now, the problems may be steadily getting worse and a qualified veterinarian has ruled out physical and visual problems. The dog has a sound foundation in jump training and in fact may have been considered a talented jumper before the on-



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set of signs. (Many attribute ETS to the dogs' structure, or jump training, but the fact that initially the dogs jump nicely, before the onset of signs, does not support either theory.)

Early signs of ETS can be very subtle and usually go undetected. Often the first sign of trouble is that the dog crashes the triple or the tire, or begins to knock bars. Obstacles with components that extend forward of the jumping element, such as the tire and triple, tend to cause the dog to misjudge the location of the actual jump. Affected dogs focus on the forwardmost element of the obstacle (tire frame base, front bar, or front edge of the jump standard of the triple) and use that to gauge where to center their jumping arc. Electronic timers placed in front of the first jump may also be misleading. If the dog takes off too early on the tire or triple, in many cases he will be unable clear the obstacle, which can lead to some unfortunate wrecks. The problem is not due to lack of jumping power; the dog misjudges where the jump is. See **Figures 6 and 7**. If the dog knocks or crashes a jump, this may create lack of confidence. Lack of confidence or stress exacerbates ETS, making the dog even more likely to take off early and more likely to crash again, starting a vicious cycle. Some dogs with ETS become quite stressed, depending on their temperament, which only serves to make the problem worse. They do not *want* to take off too early and hit the jumps.

Not all dogs with ETS crash tires and triples, but it is very common. And, not all dogs that crash tires or triples have ETS. Similarly, it is important to note that some dogs will stutter step temporarily if they lose confidence, and once they regain confidence their jumping improves. If so, it is not ETS. Because electronic timers set in front of a jump can cause affected dogs to take off too early, often dogs with ETS will knock the first bar. However, unaffected dogs may knock first bars as well.

CHARACTERISTIC SIGNS

Obviously, when assessing a dog for ETS a very careful history must be taken. ETS is a "syndrome," which means it is a collection of characteristic signs. If only one or two of the signs are present, they may not indicate ETS.

Early Takeoff for Jumps

In agility, the most common sign is shortening of the last stride and early takeoff, leading to knocked jumps, especially the tire and spreads. Because most competition tires are nondisplaceable, some frightening crashes may result because the dog misjudges, takes off early, and lands on the tire. Some manufactured triple jump standards are particularly difficult for small dogs because the actual jump is recessed within the side supports, making the front edge of the jump prominent. The faster the dog is, the more quickly ETS is noticed because the shortening of the last stride results in a more obvious change in the dog's speed. In addition, the dog's course times may start to increase if the dog starts to take extra strides as a result of the ETS. Sometimes a sign most noticeable to the handler early on is that the dog lowers his head on his final stride before the jump.

However, it is important to remember that some dogs do not show the characteristic shortening of the final stride. Instead, they leave out the final stride and overjump. Sometimes this is misinterpreted as jumping "scope" or power. Depending on the course design, this can actually result in faster times and the dog may be very successful early in his career. However, ETS progressively worsens, leading to limitations in the dog's performance as time goes on. When a young dog starts out appearing to have unlimited talent and potential, it can be heartbreaking for him to develop ETS.

Early Takeoff for Other Obstacles or at Home

Observant owners may notice signs away from agility, such as the dog's misjudging a hop onto the sofa, or being hesitant about climbing an unfamiliar staircase. The dog may not want to jump into a strange car or van. Some dogs misjudge jumping into the owner's arms. Many affected dogs also shorten their last stride and take off from too far back on the approach to the contact obstacles and/or table. This makes them hit very low on the upside of the A-frame (also the dogwalk and teeter, although less noticeable), which may affect their striding for running contacts. They may misjudge the table, jumping from too far back.

Recently I've speculated that some of the premature stops on contact obstacle ramps, followed by overjumping off the obstacle, may actually be related to ETS as a result of the dog's misjudging where the end of the ramp is.

Environmental Factors

Handler motion and/or location ahead of the dog tend to worsen ETS. For most dogs, faster speeds are more difficult. Usually the farther apart the jumps are, and/or the more perpendicular the approach, the harder it is for the dog to judge an appropriate takeoff distance. Interestingly, many dogs with ETS jump from a very close distance without a problem, and they often slice jumps at an angle just fine. See Figure 8. Although the problem appears to be related to depth perception or judging distance to an obstacle, most dogs with ETS have no trouble at all with weave entries. There seems to be a distinct inability to judge distance to horizontal objects (such as jump bars) versus vertical objects (such as weave poles). In fact, the forward-most vertical component of the jump

is often what the dog reads. If presented with jump wings with no bar, some affected dogs jump the empty space as if a bar were present, clearly keying off the vertical upright and assuming a bar was there to be jumped. Changes in the lighting (lighter or darker) on the course, and busy background scenery can exacerbate ETS. For some dogs, specific obstacles following a jump, or in some cases jumps following specific obstacles, such as a tunnel, may be a problem.

Jump Training

In most cases, the foundation jump training in affected dogs is more than adequate. Lack of foundation is not the cause of ETS, except perhaps indirectly if the dog was never a confident jumper. Once it appears, ETS tends to progress and while it may seem to respond to training temporarily, most often it does not. If affected dogs are schooled over a sequence or grid of jumps several times, they often do improve on that sequence,
















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but the most likely reason is because the dogs have figured out where the jumps are and are now jumping with more confidence. If the sequence changes, the dogs revert to early takeoffs again. Every dog is affected differently. Some may take only one or two jumps inappropriately during a run, others have problems with every jump; but the degree to which they are affected changes from trial to trial, based on the venue (each has different lighting, footing, backgrounds, equipment) and confidence level.

Poor training can certainly result in jumping problems, but it is not the cause of ETS. Excessive or inadequate training may result in a lack of confidence, which definitely makes ETS worse, so indirectly training can affect ETS. It is very important to consult a knowledgeable professional before embarking on a jumping retraining program. If the dog has ETS, no matter what is done, the dog will not improve in the long term and working excessive jumping drills is contraindicated.

Hereditary Factors

Early takeoff syndrome probably occurs in all dog breeds to some degree, but some breeds have a much higher incidence than others. Jumping problems occur in Tervurens and Soft-Coated Wheaten Terriers, for example, and are typically attributed to structure. More likely, they are affected by some variation of ETS. Curiously, a large percentage of Norfolk Terriers are affected with ETS to some extent; however, Norwich Terriers, which are very similar in structure, do not have the same high incidence. (Obviously, some breeds experience difficulty jumping because of nonathletic structure.)

Although the actual cause(s) of ETS is not known, the evidence strongly suggests that the associated factors are inherited in some way. ETS not only occurs in some breeds more than others, but it can also be associated with certain family lines within some breeds. Breeds that have athletic structure, usually thought to be talented jumping dogs that excel at agility such as Shelties, Border Collies, and Aussies, can be affected by ETS. In these breeds (and others), it is often possible to identify several dogs affected with ETS that are related. It may occur in full and half siblings, so affected pups

may have only one parent in common. In any one litter, not all puppies are affected. In fact, in the very same litter, there may be pups that develop ETS as adults and pups that as adults are blessed with world-class jumping talent. It is equally possible that a dog with ETS has no identifiable relatives that are similarly affected and appears to be an isolated case. So, although there definitely appears to be a hereditary component, much more investigation needs to be done before it is fully understood.

Miscellaneous

A small percentage of dogs kick their hind legs abnormally high when jumping or use their rear ends inappropriately in other ways. It is possible some affected dogs have an associated proprioceptive deficit, but most dogs with ETS do not do this.

Older dogs may begin to show signs similar to ETS much later in their careers. Most likely they are experiencing some variation of ETS, but the cause of the syndrome may be different in these dogs and late onset is not typical of classic ETS.

I first started learning to recognize ETS back when many agility dogs had originally competed in obedience. Interestingly, the owners often reported that the bar jump was more difficult for the dog than the high jump. In older obedience training books there are references to jumping problems that most likely were ETS. I don't believe ETS is new; the recent increase in popularity of agility and other performance sports has simply made it more apparent. It may be prevalent in many breeds, but unless the dogs are participating in performance events that require jumping, affected dogs aren't recognized.

DIAGNOSIS

The diagnosis of ETS begins with a complete history, and a physical exam by a veterinarian who specializes in sports medicine. Many dogs slow down, stutter, and hesitate in front of jumps if they have physical pain, so it is always important to check the dog's health first when a jumping problem first appears. Assuming the physical exam is normal, which it is with ETS, the next step is a thorough eye

exam by a veterinary ophthalmologist. Most dogs affected by ETS have normal CERF exams. A CERF exam does not test the dog's actual visual capability. A normal eye exam only indicates there are no structural abnormalities within the eye that could affect vision. In an effort to identify an explanation for ETS, some affected dogs have had electroretinograms and have been tested for near- and far-sightedness, but the results have not been conclusive. ETS appears to be a vision problem and/or a problem with how the visual input is interpreted by the brain. To my knowledge, there is no simple, routine clinical test for depth perception in dogs at this time, nor do we have eye charts for the dogs to read to test their vision. I'm hoping with increased awareness and demand from agility competitors, a definitive cause for this syndrome can be identified, and steps taken toward obtaining an accurate diagnosis. It is important to note that most dogs affected by ETS have no apparent problems in everyday life; and if the dog was a pet or in some cases even doing the work he is bred to do, no one would ever know.

Assuming the dog is in good health, the dog's history and symptoms are then evaluated. Not all dogs show every symptom. The exact cause of ETS is not known. It may have different causes in different dogs; really all that is identifiable is the syndrome. The most common signs, which are present in nearly all cases, are listed below.

- Early takeoff on approach to jumps with premature descent
- Normal physical exam
- Normal eye exam
- Normal start to jumping
- Progressively worsens over time
- Unresponsive to jump retraining
- Knocked bars; worse with tire and/or spreads*
- Lack of confidence worsens*

**These two signs are present in the majority of dogs with ETS, but not all.*

Dogs with ETS have characteristic difficulty with specific jumping drills. I

have a set of drills that I use for diagnostic purposes. I have not included them in this article because they should not be attempted unless a knowledgeable professional experienced in evaluating jumping is available to supervise and accurately observe the dogs' responses. The drills induce early takeoffs in affected dogs; therefore they must be used with caution because of the potential for injury. I am happy to share them on a case-by-case basis upon request.

TREATMENT

There is no known cure for ETS. It progresses slowly and gets steadily worse over time. I've worked with many dedicated, conscientious handlers of affected dogs over the years. It is important to understand the handler is not responsible for the development of ETS. It is not due to inadequate training, and training is not going to solve it. Repeated jump grids or other drills can actually worsen the problem because the dogs cannot respond as expected. If presented with jumping challenges they are incapable of solving, the dogs get discouraged and

The image shows a digital interface for 'Clean Run Digital Edition'. At the top, there's a navigation bar with 'TOOLS', 'CONTENTS', 'ZOOM', '1-PAGE VIEW', 'SEARCH', 'PRINT', 'SAVE', 'SEND', and 'HELP'. Below this, a 'CONTENTS' window is open, displaying a list of articles and their page numbers. A mouse cursor is pointing at 'Ask the Experts' on page 32. The background of the interface features a large red starburst graphic with the word 'New!' and the title 'Clean Run Digital Edition'. To the right, text reads 'It's the complete Clean Run magazine you love – now available on your computer screen'. Below this text is an image of a laptop displaying the magazine's content. At the bottom right, there's a call to action: 'Check out the free sample issue at <http://www.nxtbook.com/nxtbooks/cleanrun/sampleissue>'.

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This series of photos shows a dog approaching a double and taking off too early, with his jumping arc peaking before the bar. He has already begun to descend before he is over the jump.

lose confidence, making matters worse. Often the last thing you should do is try to “fix” ETS because the more you obsesses about the problem, the more worried the dog gets. Indeed, because stress can exacerbate the problem, some dogs have been treated with anti-anxiety medications. To my knowledge, this has not been of much benefit unless the dog has other unrelated behavioral issues.

Although training does not improve early takeoff syndrome in the long term, there are some things that can be done to help the dog in the early stages. It is important for the dog to learn to focus on where the actual jump is. Many of these measures are appropriate for all dogs, because some dogs that do not have ETS still have trouble judging spreads and tires. This is not intended to be an all-inclusive list.

- Remove the tire from the frame and teach the dog to look for the hole of the tire to jump through, not the frame. Practice on smaller diameter tires than the dog will see in competition.
- Vary the appearance of all jumps by changing location of wings and uprights in relation to the bar, so they are not always in the same plane.
- Use only one bar on the triple (and double) standards and have the dog perform it forward and backward (so the bar sometimes is at the front of the wing and sometimes at the back). Set wings at varying distances in front of and behind the actual jump the dog is taking for the dog to pass through (with no bar).
- Set the tire frame along the path to a tunnel (with tire removed) so that the dog learns to ignore the frame. Then place the frame along the path to and from a jump as above.
- Create a channel or lane with baby gates or fencing on either side of the jumps so the horizontal component of the jump is more prominent and there is no distinct forwardmost element of the obstacle, allowing the dog to focus on the horizontal bars.
- Praise, praise, praise. Build confidence. Do not mark knocked bars because the dog is doing the best he can. Be sure to use displaceable, lightweight bars that the dog cannot injure himself on.

Some handlers have reported that they’ve stopped competing totally to go back and work through the jumping program in *Developing Jumping Skills* from the beginning with some success. Others have felt that asking the dog to do simple jump grids had some benefit. In either case, most likely improvement is due to the confidence the dog gains through the program, not because of the training program itself.

PROGNOSIS

Depending on the dog’s temperament and self-confidence, some dogs learn to deal with ETS. These dogs may still enjoy successful agility careers. For others, the syndrome can severely limit their performance and is a serious problem that leads to eventual retirement or injury. Some affected dogs learn to compensate in different ways such as overjumping (jumping with excessive height), or slowing their pace. By overjumping, dogs may be able to clear the jumps without hitting the bars despite the early takeoff. See **Figure 9**. Some dogs can manage if the jump heights are lowered and spreads eliminated, which has the same effect.

Many handlers experiment and find ways to help their dogs cope, such as handling primarily from behind the dog, avoiding long lead-outs, avoiding being too far ahead of the dog, and so on. Handlers should also avoid excessive motion and sudden transitions. Performing turns on the flat as much as possible is beneficial to many dogs, especially if an angled or shortened approach to the jump results. Landing-side front crosses are not usually the best handling strategy, although crossing close to a jump on the takeoff side, so the dog is presented with the jump from very close, can be useful. Many handlers set up their dogs close to the first jump to prevent the dog from taking off too early due to the timers. Competing at the lowest jump height possible and in classes that do not have spreads helps the dog with ETS to be successful and remain confident.

The dogs with level-headed thinking and steady temperaments usually cope the best. Some dogs never adapt and ETS eventually leads to retirement. Others manage quite well and can still enjoy the sport. Surprisingly, some have been very



This dog has misjudged the double and has taken off too early. He has already begun to descend before he is over the jump.

successful. Many dogs compete for years with the problem, some at the highest levels. All dogs are different in how they cope and how fast ETS progresses. Many dogs can participate in agility despite ETS as long as the handler evaluates the dog's capabilities realistically and maintains reasonable expectations. With the level competition has risen to in the last few years, it may be unreasonable to expect an ETS-affected dog to win major championships, but often a team can still have fun if the handler maintains the dog's confidence and keeps it positive.

Although not the best option for most diehard agility enthusiasts, some affected dogs, with guidance, are able to compete successfully in alternative sports such as flyball, where the jumps are lower and the spacing is predictable.

PREVENTION

Many handlers inappropriately blame themselves for their dogs' jumping problems. At present, the development of ETS is not preventable, and no one is at fault. Increased awareness is the first step toward prevention of ETS. My goal for this article is to bring the problem to the attention of the agility community, so that steps toward identifying a definitive cause and treatment can be taken. Prevention is not possible until the cause is better understood. In the meantime, it is important that breeders start evaluating their breeding programs carefully. Most performance dog breeders have probably not been aware of ETS until now, thus have not been screening their dogs and their offspring for it. As awareness of ETS becomes more widespread,

hopefully performance dog breeders can get the information they need to make knowledgeable decisions when selecting breeding prospects. Identifying isolated cases of ETS may not be cause for alarm, but if multiple dogs that are related are affected by ETS, a red flag should be raised. Until more is known about the cause and treatment of ETS, breeders should consider removing affected dogs, or those that have produced affected dogs, from their breeding programs; or at least planning carefully to avoid breeding two individuals that both have relatives associated with ETS.

Information about ETS and its potential should be disclosed to prospective buyers of related pups so that they can make informed decisions. Those interested in agility as a casual pastime may not care at all; those that aspire to compete at the highest levels of the sport may prefer not to take a risk. It is extremely disappointing to put a great deal of time, money, and emotional investment into a promising young pup only to have jumping problems start to develop just as the dog is beginning to show his potential. It is important to note that dogs bred for conformation will have no apparent problems and so it may be difficult for a breeder of such dogs to accurately screen for ETS and prevent it in dogs they offer as performance prospects.

Removing affected dogs from the breeding pool may literally be impossible for some breeds that have an unusually high incidence. As awareness of ETS becomes more widespread, hopefully the breed clubs of those breeds will be inspired to take action and seek out ways to eliminate it.

SUMMARY

Early takeoff syndrome is a term used to describe a progressive jumping problem seen in performance dogs where the most characteristic sign is that the dog takes off inappropriately early for the jumps. The affected dogs are in good health and in most cases have a sound foundation in jump training. Classic ETS does not improve with training. Certain breeds and lines within breeds are often affected and there seems to be a hereditary component; therefore, breeders of performance dogs need to take action to prevent ETS. Finally, remember that lack of confidence exacerbates ETS, and maintaining confidence is probably the most important aspect of the dog's jumping program, whether ETS is present or not. 🐾

*Linda Mecklenburg is internationally recognized as one of the most accomplished trainers of jumping for agility dogs. Her approach to foundation jump training, as described in her book *Developing Jumping Skills*, has been used by top handlers to produce talented and skillful jumpers all over the world. She is considered to be an expert on diagnosing and solving a wide range of jumping problems. Years of experience working with dogs with jumping problems prompted Linda to share her observations in this article. For more detailed information or consultations, visit www.awesomepaws.us where you will find "The Forum," an online discussion group dedicated to agility.*

Author's note:

I'd like to express my appreciation to the handlers of dogs who came to me for help with their dogs' jumping problems years ago before I recognized ETS and its ramifications. I wish I knew then, what I know now. Hopefully many, many dogs in the future will benefit from the knowledge I gained by working with your dogs.

Several video examples of ETS have been posted on the Clean Run Magazine Forum website (www.cleanrun.com/index.cfm?fuseaction=category.display&category_id=603). The video links and photos used in this article have been graciously provided by the dogs' owners, with permission, in the hope that other owners and their dogs that may suffer from ETS will benefit. In each case the dog's physical health and vision have been determined to be normal by veterinarians. In the videos you can see that the dogs want to do agility, and it is heartbreaking that jumping can be such a struggle for some.